

AMENDMENTS TO THE CLAIMS

What is claimed as being new and desired to be protected by LETTERS PATENT of the United States is as follows:

1. (Original) An illumination system for providing efficient and highly recognizable devices for producing light comprising in combination:

a thin circular plate comprised of thermally conductive material having an upper surface and a lower surface;

a plurality of rectilinear "L" shaped thermally conductive circuit boards each having an internal face, an external face, a pair of parallel side edges, a vertical portion and a horizontal portion and a bend there between, with the external face of the vertical portion having a means for attachment of at least one LED, and the horizontal portion having a means for attachment to the plate, the circuit boards being arranged in a configuration with adjacent parallel side edges separated from each other;

at least one light emitting diode functioning as a light emitter being coupled to the vertical portion of the circuit board with means to maximize heat transfer;

an optical lens of a generally cylindrical configuration formed as a dome having a closed top end and an open bottom end and comprised of a transparent material, the open bottom end being configured to lie adjacent to the upper surface of the plate;

a mounting base of a generally cylindrical configuration with an open top part, a closed bottom part and a side face there around, the top part having a lip adapted to lie adjacent the lower surface of the plate with an aperture and flange extending from the mounting base;

a plurality of rivets adapted to couple together the circuit boards and the plate and the base;

a retainer ring adapted to couple together the lens and the plate and the mounting base; and

an external electrical source operatively coupled to the system.

2. (Currently Amended) An illumination system comprising:

a mounting plate;

a plurality of thermally conductive circuit boards in thermal contact with the mounting plate;

a plurality of light emitting diodes electrically and thermally communicating with the circuit boards;

an optical lens formed as a translucent dome covering the circuit boards and light emitting diodes;

a base operatively coupled to the mounting plate and lens;

an alternating current to direct current power converter;

and

an external electrical source to provide alternating current that is converted to direct current power so as to provide power to the system.

3. (Currently Amended) The system as set forth in claim 2 wherein the base is of a generally cylindrical configuration with an open top part, a closed bottom part and a side face there around, the top part having a lip adapted to lie adjacent the lower surface of the plate with ~~[[a]]~~ an entrance aperture and flange extending from the mounting base.

4. (Currently Amended) An illumination system comprising:
a mounting plate;

a plurality of thermally conductive circuit ~~boards~~ boards in thermal contact with the mounting plate;

at least one pair of light emitting diodes, with each pair being ~~operative~~ operatically coupled to a circuit board wherein the diodes are adjacently disposed and electrically connected in a parallel circuit configuration;

an optical lens formed as a translucent dome, the lens covering the circuit boards and light emitting diodes; and

an alternating current electrical power means being converted to provide ~~providing~~ a constant current to each light emitting diode pair.

5. (Original) The system as set forth in Claim 4 wherein the base has a generally cylindrical configuration with an open

top part, a closed bottom part and a side face there around, the top part having a lip configured to lie adjacent the lower surface of the plate with an entrance aperture and flange extending from the mounting base.

6. (Original) The system as set forth in Claim 4 wherein the system further comprises a plurality of conductive circuit boards and plurality of pairs of light emitting diodes.

7. (Currently Amended) The system as set forth in Claim 4 wherein the system further comprises ~~the~~ a Fresnel lens, the lens having a vertical position with the dome oriented upwards, with the lens producing a substantially Fresnel-type beam covering 360 degrees azimuthally, and producing at least 32.5 candela over a 10 degree beam band, centered between 4 and 20 degrees above a horizontal plane ~~azimuthally uniform optical output having a narrowed vertical extent and a peak output in the range extending from 0 degrees to 50 degrees elevation.~~